



PCT10

RAW SEQUENCE LISTING

DATE: 08/13/2002

PATENT APPLICATION: US/10/070,144

TIME: 16:39:10

Input Set : A:\9286-9.ST25.txt

Output Set: N:\CRF4\08132002\J070144.raw

ENTERED

3 <110> APPLICANT: Bacher, Adelbert
4 Mortl, Simone
6 <120> TITLE OF INVENTION: METHOD FOR SCREENING FOR INHIBITORS OF THE BIOSYNTHESIS OF
RIBOFLAVIN
8 <130> FILE REFERENCE: 9286-9
10 <140> CURRENT APPLICATION NUMBER: US 10/070,144
C--> 11 <141> CURRENT FILING DATE: 2002-07-12
13 <150> PRIOR APPLICATION NUMBER: DE 199 42 175.7
14 <151> PRIOR FILING DATE: 1999-09-03
16 <160> NUMBER OF SEQ ID NOS: 12
18 <170> SOFTWARE: PatentIn version 3.1
20 <210> SEQ ID NO: 1
21 <211> LENGTH: 34
22 <212> TYPE: DNA
23 <213> ORGANISM: Artificial sequence
25 <220> FEATURE:
26 <223> OTHER INFORMATION: Synthetic oligonucleotide primer
28 <400> SEQUENCE: 1
29 ggagaaatta accatgaagt cattagcttc gccg 34
32 <210> SEQ ID NO: 2
33 <211> LENGTH: 27
34 <212> TYPE: DNA
35 <213> ORGANISM: Artificial sequence
37 <220> FEATURE:
38 <223> OTHER INFORMATION: Synthetic oligonucleotide primer
40 <400> SEQUENCE: 2
41 tcatgtggat ccatggaacg agccgag 27
44 <210> SEQ ID NO: 3
45 <211> LENGTH: 36
46 <212> TYPE: DNA
47 <213> ORGANISM: Artificial sequence
49 <220> FEATURE:
50 <223> OTHER INFORMATION: Synthetic oligonucleotide primer
52 <400> SEQUENCE: 3
53 caatttgaat tcattaaaga ggagaaatta actatg 36
56 <210> SEQ ID NO: 4
57 <211> LENGTH: 37
58 <212> TYPE: DNA
59 <213> ORGANISM: Artificial sequence
61 <220> FEATURE:
62 <223> OTHER INFORMATION: Synthetic oligonucleotide primer
64 <400> SEQUENCE: 4
65 ggagaaatta accatgcatg ttacgggggc tcttatc 37
68 <210> SEQ ID NO: 5

Input Set : A:\9286-9.ST25.txt
Output Set: N:\CRF4\08132002\J070144.raw

```

69 <211> LENGTH: 42
70 <212> TYPE: DNA
71 <213> ORGANISM: Artificial sequence
73 <220> FEATURE:
74 <223> OTHER INFORMATION: Synthetic oligonucleotide primer
76 <400> SEQUENCE: 5
77 ataataatag cggccgctat gcatgttacg gggctctctta tc 42
80 <210> SEQ ID NO: 6
81 <211> LENGTH: 699
82 <212> TYPE: DNA
83 <213> ORGANISM: Arabidopsis thaliana
85 <220> FEATURE:
86 <221> NAME/KEY: CDS
87 <222> LOCATION: (1)..(681)
88 <223> OTHER INFORMATION:
91 <400> SEQUENCE: 6
92 atg aag tca tta gct tcg ccg ccg tgt ctc cgc ctg ata ccg acg gca 48
93 Met Lys Ser Leu Ala Ser Pro Pro Cys Leu Arg Leu Ile Pro Thr Ala
94 1 5 10 15
96 cac cgt cag ctc aat tcg cgt caa tct tcc tcc gcc tgt tat ata cac 96
97 His Arg Gln Leu Asn Ser Arg Gln Ser Ser Ser Ala Cys Tyr Ile His
98 20 25 30
100 ggt ggc tct tct gtg aac aaa tcc aat aat ctc tca ttc tcc tca tcc 144
101 Gly Gly Ser Ser Val Asn Lys Ser Asn Asn Leu Ser Phe Ser Ser Ser
102 35 40 45
104 aca tcc gga ttt gcg tca cca cta gct gta gag aag gaa tta cgc tct 192
105 Thr Ser Gly Phe Ala Ser Pro Leu Ala Val Glu Lys Glu Leu Arg Ser
106 50 55 60
108 tca ttc gta cag acg gct gct gtt cgc cat gtt acg ggg tct ctt atc 240
109 Ser Phe Val Gln Thr Ala Ala Val Arg His Val Thr Gly Ser Leu Ile
110 65 70 75 80
112 aga ggc gaa ggt ctt aga ttc gcc atc gtg gta gct cgt ttc aat gag 288
113 Arg Gly Glu Gly Leu Arg Phe Ala Ile Val Val Ala Arg Phe Asn Glu
114 85 90 95
116 gtt gtg act aag ttg ctt ttg gaa gga gcg att gag act ttc aag aag 336
117 Val Val Thr Lys Leu Leu Leu Glu Gly Ala Ile Glu Thr Phe Lys Lys
118 100 105 110
120 tat tca gtc aga gaa gaa gac att gaa gtt att tgg gtt cct ggc agc 384
121 Tyr Ser Val Arg Glu Glu Asp Ile Glu Val Ile Trp Val Pro Gly Ser
122 115 120 125
124 ttt gaa att ggt gtt gtt gca caa aat ctt ggg aaa tcg gga aaa ttt 432
125 Phe Glu Ile Gly Val Val Ala Gln Asn Leu Gly Lys Ser Gly Lys Phe
126 130 135 140
128 cat gct gtt tta tgt atc ggc gct gtg ata aga gga gat acc aca cat 480
129 His Ala Val Leu Cys Ile Gly Ala Val Ile Arg Gly Asp Thr Thr His
130 145 150 155 160
132 tat gat gct gtt gcc aac tct gct gcg tct gga gta ctt tct gct agc 528
133 Tyr Asp Ala Val Ala Asn Ser Ala Ala Ser Gly Val Leu Ser Ala Ser
134 165 170 175

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/070,144

DATE: 08/13/2002

TIME: 16:39:10

Input Set : A:\9286-9.ST25.txt

Output Set: N:\CRF4\08132002\J070144.raw

```
136 ata aat tca ggc gtt cca tgc ata ttt ggt gta ctg act tgc gag gac      576
137 Ile Asn Ser Gly Val Pro Cys Ile Phe Gly Val Leu Thr Cys Glu Asp
138          180          185          190
140 atg gat cag gct ctg aat cga tct ggt ggc aaa gcc ggc aat aag gga      624
141 Met Asp Gln Ala Leu Asn Arg Ser Gly Gly Lys Ala Gly Asn Lys Gly
142          195          200          205
144 gct gaa act gct ttg acg gcg ctc gaa atg gcg tcg ttg ttt gag cac      672
145 Ala Glu Thr Ala Leu Thr Ala Leu Glu Met Ala Ser Leu Phe Glu His
146          210          215          220
148 cac ctg aaa tagctcggct cgttccat      699
149 His Leu Lys
150 225
153 <210> SEQ ID NO: 7
154 <211> LENGTH: 227
155 <212> TYPE: PRT
156 <213> ORGANISM: Arabidopsis thaliana
158 <400> SEQUENCE: 7
160 Met Lys Ser Leu Ala Ser Pro Pro Cys Leu Arg Leu Ile Pro Thr Ala
161 1          5          10          15
164 His Arg Gln Leu Asn Ser Arg Gln Ser Ser Ala Cys Tyr Ile His
165          20          25          30
168 Gly Gly Ser Ser Val Asn Lys Ser Asn Asn Leu Ser Phe Ser Ser Ser
169          35          40          45
172 Thr Ser Gly Phe Ala Ser Pro Leu Ala Val Glu Lys Glu Leu Arg Ser
173          50          55          60
176 Ser Phe Val Gln Thr Ala Ala Val Arg His Val Thr Gly Ser Leu Ile
177 65          70          75          80
180 Arg Gly Glu Gly Leu Arg Phe Ala Ile Val Val Ala Arg Phe Asn Glu
181          85          90          95
184 Val Val Thr Lys Leu Leu Leu Glu Gly Ala Ile Glu Thr Phe Lys Lys
185          100          105          110
188 Tyr Ser Val Arg Glu Glu Asp Ile Glu Val Ile Trp Val Pro Gly Ser
189          115          120          125
192 Phe Glu Ile Gly Val Val Ala Gln Asn Leu Gly Lys Ser Gly Lys Phe
193          130          135          140
196 His Ala Val Leu Cys Ile Gly Ala Val Ile Arg Gly Asp Thr Thr His
197 145          150          155          160
200 Tyr Asp Ala Val Ala Asn Ser Ala Ala Ser Gly Val Leu Ser Ala Ser
201          165          170          175
204 Ile Asn Ser Gly Val Pro Cys Ile Phe Gly Val Leu Thr Cys Glu Asp
205          180          185          190
208 Met Asp Gln Ala Leu Asn Arg Ser Gly Gly Lys Ala Gly Asn Lys Gly
209          195          200          205
212 Ala Glu Thr Ala Leu Thr Ala Leu Glu Met Ala Ser Leu Phe Glu His
213          210          215          220
216 His Leu Lys
217 225
220 <210> SEQ ID NO: 8
221 <211> LENGTH: 114
```

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/070,144

DATE: 08/13/2002
TIME: 16:39:10

Input Set : A:\9286-9.ST25.txt
Output Set: N:\CRF4\08132002\J070144.raw

```
222 <212> TYPE: PRT
223 <213> ORGANISM: Arabidopsis thaliana
225 <400> SEQUENCE: 8
227 Met Lys Ser Leu Ala Ser Pro Pro Cys Leu Arg Leu Ile Pro Thr Ala
228 1 5 10 15
231 His Arg Gln Leu Asn Ser Arg Gln Ser Ser Ser Ala Cys Tyr Ile His
232 20 25 30
235 Gly Gly Ser Ser Val Asn Lys Ser Asn Asn Leu Ser Phe Ser Ser Ser
236 35 40 45
239 Thr Ser Gly Phe Ala Ser Pro Leu Ala Val Glu Lys Glu Leu Arg Ser
240 50 55 60
243 Ser Phe Val Gln Thr Ala Ala Val Arg His Val Thr Gly Ser Leu Ile
244 65 70 75 80
247 Arg Gly Glu Gly Leu Arg Phe Ala Ile Val Val Ala Arg Phe Asn Glu
248 85 90 95
251 Val Val Thr Lys Leu Leu Leu Glu Gly Ala Ile Glu Thr Phe Lys Lys
252 100 105 110
255 Tyr Ser
259 <210> SEQ ID NO: 9
260 <211> LENGTH: 114
261 <212> TYPE: PRT
262 <213> ORGANISM: Arabidopsis thaliana
264 <400> SEQUENCE: 9
266 Val Arg Glu Glu Asp Ile Glu Val Ile Trp Val Pro Gly Ser Phe Glu
267 1 5 10 15
270 Ile Gly Val Val Ala Gln Asn Leu Gly Lys Ser Gly Lys Phe His Ala
271 20 25 30
274 Val Leu Cys Ile Gly Ala Val Ile Arg Gly Asp Thr Thr His Tyr Asp
275 35 40 45
278 Ala Val Ala Asn Ser Ala Ala Ser Gly Val Leu Ser Ala Ser Ile Asn
279 50 55 60
282 Ser Gly Val Pro Cys Ile Phe Gly Val Leu Thr Cys Glu Asp Met Asp
283 65 70 75 80
286 Gln Gln Ala Leu Asn Arg Ser Gly Gly Lys Ala Gly Asn Lys Gly Ala
287 85 90 95
290 Glu Thr Ala Leu Thr Ala Leu Glu Met Ala Ser Leu Phe Glu His His
291 100 105 110
294 Leu Lys
298 <210> SEQ ID NO: 10
299 <211> LENGTH: 156
300 <212> TYPE: PRT
301 <213> ORGANISM: Escherichia coli
303 <400> SEQUENCE: 10
305 Met Asn Ile Ile Glu Ala Asn Val Ala Thr Pro Asp Ala Arg Val Ala
306 1 5 10 15
309 Ile Thr Ile Ala Arg Phe Asn Asn Phe Ile Asn Asp Ser Leu Leu Glu
310 20 25 30
313 Gly Ala Ile Asp Ala Leu Lys Arg Ile Gly Gln Val Lys Asp Glu Asn
314 35 40 45
```

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/070,144

DATE: 08/13/2002
TIME: 16:39:10

Input Set : A:\9286-9.ST25.txt
Output Set: N:\CRF4\08132002\J070144.raw

```

317 Ile Thr Val Val Trp Val Pro Gly Ala Tyr Glu Leu Pro Leu Ala Ala
318      50                      55                      60
321 Gly Ala Leu Ala Lys Thr Gly Lys Tyr Asp Ala Val Ile Ala Leu Gly
322 65                      70                      75                      80
325 Thr Val Ile Arg Gly Gly Thr Ala His Phe Glu Tyr Val Ala Gly Gly
326                      85                      90                      95
329 Ala Ser Asn Gly Leu Ala His Val Ala Gln Asp Ser Glu Ile Pro Val
330                      100                      105                      110
333 Ala Phe Gly Val Leu Thr Thr Glu Ser Ile Glu Gln Ala Ile Glu Arg
334                      115                      120                      125
337 Ala Gly Thr Lys Ala Gly Asn Lys Gly Ala Glu Ala Ala Leu Thr Ala
338      130                      135                      140
341 Leu Glu Met Ile Asn Val Leu Lys Ala Ile Lys Ala
342 145                      150                      155
345 <210> SEQ ID NO: 11
346 <211> LENGTH: 42
347 <212> TYPE: PRT
348 <213> ORGANISM: Bacillus subtilis
350 <400> SEQUENCE: 11
352 Met Asn Ile Ile Gln Gly Asn Leu Val Gly Thr Gly Leu Lys Ile Gly
353 1                      5                      10                      15
356 Ile Val Val Gly Arg Phe Asn Asp Phe Ile Thr Ser Lys Leu Leu Ser
357      20                      25                      30
360 Gly Ala Glu Asp Ala Leu Leu Arg His Gly
361      35                      40
364 <210> SEQ ID NO: 12
365 <211> LENGTH: 112
366 <212> TYPE: PRT
367 <213> ORGANISM: Bacillus subtilis
369 <400> SEQUENCE: 12
371 Val Asp Thr Asn Asp Ile Asp Val Ala Trp Val Pro Gly Ala Phe Glu
372 1                      5                      10                      15
375 Ile Pro Phe Ala Ala Lys Lys Met Ala Glu Thr Lys Lys Tyr Asp Ala
376      20                      25                      30
379 Ile Ile Thr Leu Gly Thr Val Ile Arg Gly Ala Thr Thr His Tyr Asp
380      35                      40                      45
383 Tyr Val Cys Asn Glu Ala Ala Lys Gly Ile Ala Gln Ala Ala Asn Thr
384      50                      55                      60
387 Thr Gly Val Pro Val Ile Phe Gly Ile Val Thr Thr Glu Asn Ile Glu
388 65                      70                      75                      80
391 Gln Ala Ile Glu Arg Ala Gly Thr Lys Ala Gly Asn Lys Gly Val Asp
392      85                      90                      95
395 Cys Ala Val Ser Ala Ile Glu Met Ala Asn Leu Asn Arg Ser Phe Glu
396      100                      105                      110

```

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/070,144

DATE: 08/13/2002

TIME: 16:39:12

Input Set : A:\9286-9.ST25.txt

Output Set: N:\CRF4\08132002\J070144.raw

L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date